

Remarks

Reconsideration and withdrawal of the rejections set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1-6 and 9-12 are now pending in the application, with Claims 1, 2, 4, and 10-12 being independent. Claims 7 and 8 have been cancelled without prejudice. Claims 2-5, 11 and 12 have been withdrawn from consideration by the Examiner. A minor amendment has been made to withdrawn Claim 4 to improve its form.

Claims 1, 6 and 10 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,257,696 (Nakamura). Claim 9 was rejected under 35 U.S.C. § 103 as being unpatentable over Nakamura in view of U.S. Patent No. 5,132,710 (Ejiri et al.). These rejections are respectfully traversed.

As is recited in independent Claim 1, the present invention relates to an ink jet printing apparatus that forms an image by ejecting ink from a print head, in which a plurality of ejecting portion rows are arranged, to a print medium, with each of the ejecting portion rows having a plurality of ejecting portions arranged therein. The apparatus includes a carriage and preliminary ejecting means. The carriage scans the print head. The preliminary ejecting means ejects the ink from the ejecting portions in the print head such that the ejection is not involved in formation of the image. The preliminary ejecting means sequentially selects one of the plurality of ejecting portion rows as an ejecting portion on which an ejecting operation is performed, while the carriage is not performing a scanning

operation, and the preliminary ejecting means then subjects the selected ejecting portion row to preliminary ejection.

As is recited in independent Claim 10, the present invention relates to a preliminary ejecting method executed using an ink jet printing apparatus that forms an image by ejecting ink from a print head, in which a plurality of ejecting portion rows are arranged, to a print medium. Each of the ejecting portion rows has a plurality of ejecting portions arranged therein and the ink is ejected from the ejecting portions in the print head such that the ejection is not involved in formation of the image. The method includes a step of sequentially selecting one of the plurality of ejecting portion rows as an ejecting portion on which an ejecting operation is performed and then subjecting the selected ejecting portion row to preliminary ejection.

Nakamura relates to an ink jet recorder having an ink jet recording head unit 17 including recording head 18 for recording in four colors. A maintenance/recovery mechanism RM maintains and recovers ejection of ink from the recording head and includes a suction device 26 for eliminating defective ejection of ink, preservation caps 27 for covering nozzle surfaces while the printer is not used, and a wiper 28 for wiping the nozzle surfaces. During purging, a suction cycle including a small purge with a low negative pressure and a main purge with a higher negative pressure is performed on each ejection nozzle. In one embodiment, one cycle purge for each ejection nozzle corresponding to each color is performed in the order of inks with higher drying resistance. For example, purging of magenta is performed first, followed by cyan, yellow and black.

However, the purging in Nakamura is based on suction while covering with a cap, not preliminary ejection. In such an operation, a problem of generated ink mist does not arise due to the capping of the head during purging. Nakamura does not address the problems resolved by the present invention.

Accordingly, Nakamura fails to disclose or suggest sequentially selecting one of a plurality of ejecting portion rows as an ejecting portion on which an ejecting operation is performed and subjecting the selected ejecting portion row to preliminary ejection, as is recited in independent Claims 1 and 10.

Thus, Nakamura fails to disclose or suggest important features of the present invention recited in independent Claims 1 and 10.

Ejiri et al. was cited by the Examiner for teaching the use of thermal energy in ink jet recording, but is not believed to remedy the deficiencies of Nakamura noted above with respect to independent Claims 1 and 10.

Thus, independent Claims 1 and 10 are patentable over the citations of record. Reconsideration and withdrawal of the §§ 102 and 103 rejections are respectfully requested.

For the foregoing reasons, Applicants respectfully submit that the present invention is patentably defined by independent Claims 1 and 10. Dependent Claims 3, 6 and 9 are also allowable, in their own right, for defining features of the present invention in addition to those recited in independent Claim 1. Individual consideration of these dependent claims is requested.

Applicants submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action, and an early Notice of Allowability are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark A. Williamson", written over a horizontal line.

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